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ABSTRACT

An evaluation was conducted of the Bedford County (Virginia) career education project, K-12, for the 1975-76 school year. The results of the evaluation were organized around three major information domains: (1) student self-concept; (2) student awareness of the world of work; and (3) teacher in-service activities and use of career education resources and related practices. The Self Observation Scales (SOS) were administered to over 300 students to measure self concepts. Differences between the pretest scores and posttest scores showed a positive increase in pupils' scores at the primary and intermediate levels. The Career Maturity Inventory (CMI) was used to assess students' perceptions of the world of work and their relations with it. The results showed a marked gain from pre- to post-testing. There were six major in-service activities and numerous faculty meetings held over the course of the year. Teachers were requested to fill out the Teacher's Practices Survey (TPS) and the Bedford Career Education Survey. The TPS was designed to obtain feedback directly from teachers regarding their use of 15 specific techniques and activities related to career education. The Bedford Career Education Survey was administered on a pre/post test design for teachers and staff who participated in in-service activities. The results showed a positive increase in teacher attitudes on all three scales (acceptance, changes orientation, and commitment). Overall evaluation results indicated a successful implementation of the goals and objectives of the program. (Author/BM)

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Attachment 3

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FINAL EVALUATION REPORT FOR THE INCREMENTAL IMPROVEMENT OF A DIVISION WIDE CAREER EDUCATION PROGRAM

CG019306

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CE019306

June, 1976

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PREFACE

This is the final evaluation report for the Incremental Improvement of a Division-Wide Career Education Program, Bedford, Virginia. Though this document is prepared by IBEX, much of the contents are the result of an evaluation design conference with the Bedford County Project Director. The cooperation given by the Project Director, Mr. Charles Patsell, and his staff to the Evaluation Team deserves a special thanks. They have been most helpful and cooperative throughout the evaluation effort. The administration of the evaluation assessment battery was the responsibility of the participating teachers. They were most cooperative. All errors and opinions are, however, the responsibility of the author.

B. Steven Davis
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SECTION I. EXECUTIVE SUMMARY

The U. S. Office of Education containe a provisional for an independent third part evaluation. In response to a request for proposals from the Bedford County Schools, IBEX, submitted a proposal in September, 1975 and was selected to perform the evaluation.

The evaluation activities began in October 1975 with a design conference held in Bedford. This conference set the parameters for the evaluation and specified the roles to be played by IBEX and Project staff in carrying out the evaluation functions.

Steve Davis, Senior Consultant, was the principal investigator for this evaluation effort. Helmuts Feifs provided methodological support and Steve Schultz was responsible for the data reduction and processing.

The evaluation of the 1975-76 year of the Bedford Incremental Improvement of a Division-Wide Career Education Program was designed by IBEX, Incorporated, the independent third party evaluator, in compliance with the U.S.O.E. Guidelines and with the close cooperation of the Project director. Many of the evaluation functions were carried out directly by IBEX, while others were performed by the Project staff and the results reviewed by the IBEX evaluation team.

The evaluation design for the 1975-76 year of the Project is summarized in Section III of this report.

Responsibility for the various evaluation functions was divided between IBEX and the Project staff, since much of the data collection and record-keeping was integral to the implementation of Project activities.

The results of the evaluation are organized around three major information domains or evaluation areas of interest. These domains are: (A) student self concept, (B) student awareness of the world of work, and (C) teacher in-service activities and use of career education resources and related practices.

The major results of the 1975-76 Evaluation are summarized in the following paragraphs. A detailed presentation of the results of IBEX's evaluation is found in Section V.

The importance of a healthy self concept is well recognized. As a measure of children's self concepts, the Self Observation Scales (SOS) were employed in this evaluation. Over 300 students took the SOS. The overall results show that the sample population closely approximates the national norming group. Differences between the pretest scores and posttest scores showed a positive increase in pupils scores at the Primary Level (K-3) and Intermediate Level (4-6).

The Career Maturity Inventory (CMI) was used to assess students' perceptions of the world of work and their relations with it. This instrument was developed to measure (1) the maturity of attitudes and competencies that are critical in realistic career decision making, (2) the ability of students to appraise their job-related capabilities, and (3) the aspiration

level of students (more carefully defined as economic understanding of each job).

Each of the three CMI subtests employs a series of multiple choice items. Scores on each scale are converted from a raw to a percentile score. Overall, the CMI provided a great deal of information regarding the students' perceptions of the world of work and their relation to it, and the results showed a marked gain from pre to post testing.

The teacher and staff activities were an important component of the project. There were six major in-service activities and numerous faculty meetings held over the course of the year. In addition, the teachers were requested to fill out the Teacher's Practices Survey (TPS) and the Bedford Career Education Survey. The TPS was designed to obtain feedback directly from teachers regrading their use of 15 specific techniques and activities related to career education.

The results of the survey were summarized by estimating the average number of times each activity was used by the responding teachers during the school year.

Many of the activities, such as "integration of basic skills with career education", "career education materials" and "displays concerning careers and jobs" were used more frequently than once per week.

The Bedford Career Education Survey was administered on a pre/post test design for teachers and staff who participated in in-service activities. The survey was comprised of three

scales: (1) Acceptance, (2) Changes Orientation, and (3) Commitment. The results of the survey showed a positive increase in teacher attitudes on all three scales.

The results of the student outcome data and the teacher survey generally support the project documentation regarding the use of career education materials and activities, and they present a picture of the successful implementation of goals and objectives of the program.

SECTION II. PROGRAM DESCRIPTION

The major thrust of the Incremental Improvement project was to fuse existing elements of the Career Education NOW program* and Title III project already present in the schools with emerging concepts of career education. The program emphasis was an attempt to strengthen and improve various elements of the Bedford county career education program towards developing and implementing a comprehensive K-12 Career Education model.

An in-service for teachers, administrators and ancillary personnel provided the vehicle for training in proper utilization of educational technology and developing instructional materials related to career education. The University of Virginia agreed to provide two in-service courses for fifty selected key personnel. These people formed a nucleus of resource people within each school. In addition, in-service in career education was to be provided throughout the year at school sites for various faculties.

Seminars for personnel were conducted by project personnel and other consultants. A three day seminar for administrators and supervisors on administration and implementation of career education was completed plus an intensive one day workshop for librarians on their role in the program. Guidance personnel were also involved in workshop to reorient them in their role in placement and provide them with the orientation to serve in

*For extensive program description, see report entitled Final Evaluation Report for the Bedford County Career Education Program, Bedford, Virginia, August, 1975.

liaison position with other educational personnel, their respective schools, and school communities.

The Vocational Guidance Counselor and Group Guidance Coordinator worked with local businesses, labor, and industry to bring about better cooperation and understanding between the educational system and these organizations. Parents were aided in understanding their role in their childs career development through a series of mini courses planned and conducted by the Group Guidance Coordinator. The personnel from this project also served as consultants for other personnel in their respective efforts toward career education.

The Supervisor of Career Education provided coordination for the comprehensive K-12 career education program. The supervisor reported directly to the Director of Instruction and was responsible for coordinating existing programs and lead in efforts to tie all projects into one concerted effort. The supervisor worked throughout the system and with all personnel in program implementation.

SECTION III. CONCEPTUAL BASIS FOR EVALUATION

The strategy upon which this evaluation report builds is called Information Based Evaluation (IBE)*. This strategy has been successfully implemented on some sixty projects at both the state and local level over the past four years.

The concept of information utility is the overriding characteristic that differentiates "good" evaluation from "poor" evaluation and differentiates undisciplined data collection from information gathering. Judged by even modest standards of utility educational research and evaluation has a pitifully poor record and the unfortunate educational manager or policy maker operating within this void must sift through mountains of data for those kernels of desired information.

In the social sciences in general, and in education in particular, the mechanisms do not exist for supplying information to those that need it. The traditional evaluation mechanism has not added much to the meager research contribution. Theoretically, evaluation should be a suitable mechanism but it has suffered from growing pains and an obsession to separate itself clearly from the research model. The Information Base Evaluation model, hopefully, suffers from no such obsessions,

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*
A. Jackson Stenner, Information Based Evaluation Series Book 1: An Overview of Information Based Evaluation: A Design Procedure. Arlington, Virginia. IDEA Corp. 1972.

except perhaps that of adhering strictly to the concept of information utility.

Another contributing factor to the inadequacy of present day evaluations has been the relationship between evaluation and the performance objectives movement. The symbiotic growth these two concepts have enjoyed has served to reduce the full potential of educational evaluation. The crucial role performance objectives play in program management are obvious; however, the question arises as to what place objectives should have in evaluation. The Information Based Evaluation approach view program objectives as a focus of evaluation activity, but by no means the focus. More traditional approaches to evaluation have used performance objectives as the foundation for the planning and execution of evaluation activities. This procedure is considered inadequate for several reasons:

1. Basing evaluation on performance objectives restricts the focus of evaluation to intended outcomes, thus overlooking unintended outcomes which are potentially just as important.
2. Performance objectives provide a very inflexible basis for evaluation in that they are seldom changed during the program year, and thus information needs (which are fluid) cannot be adequately addressed.
3. Even if information on the attainment of all performance objectives is provided, important information is invariably ignored because objectives are not developed with

information needs in mind, but rather are developed as guideposts for program management.

4. Objectives based evaluation often views each objective as a unique area of focus and thus important relationships are often overlooked.

If program objectives are inadequate as a foundation for evaluation, what are the alternatives? How do we define the parameters of evaluation, i.e., what are the reference points? In objectives based evaluation, the reference points are the program objectives. In information based evaluation the reference points become the information users for the program and the information domains (needs). Capitalizing on these two reference points, a technique called domain analysis can be used to define and focus the direction of the evaluation.

Information based evaluation should not be considered as "objective free" evaluation. Information based evaluation recognizes the importance of program objectives, but only to the extent to which feedback on the objectives is considered important to information users. The overriding considerations is the type of questions about which relevant individuals desire answers. Priorities are established in both the information domain category (e.g., student cognitive growth) and the information user category (e.g., local superintendent) and the evaluation resources are expended to meet these identified priorities. An additional check on the adequacy of evaluation information is the extent to

which the information leads to action. If no relationship exists between information and action, then the adequacy and/or quality of the evaluation effort is in doubt.

In polling the various information users, the evaluation team can often develop evaluation questions that relate to "unintended outcomes" or "shadow benefits". These questions occur because all information users are probably not supportive of the program procedures and/or objectives; thus, their information needs will highlight aspects of the program that would not receive attention in an objectives based evaluation effort. Program developers and program staff generally have a highly developed commitment for the program and are myopic in viewing the outcomes of the program. The possibility that the program may cause some negative side effects is very difficult for them to comprehend, let alone accept. However, individuals or factions that have been against the program from the start are generally more than capable and willing to identify potential weaknesses and unintended outcomes. Therefore, in serving each information user, the evaluation team can gain a balanced view of the program.

Information based evaluation recognizes that an evaluation must be dynamic if it is to be responsive. Program objectives rarely change during the project year, thus the objectives based evaluation is static and methodical in responding to the information requirements. Information based evaluation accepts the fact that information needs are fluid and new questions are posed throughout the program cycle.

SECTION IV. INFORMATION NEEDS

Information Based Evaluation (IBE) rests on three major components: information users, information domains and evaluation questions. At the evaluation conference with the Bedford staff, these three components were carefully viewed and given priority rank in the Career Education evaluations.

Information Users

Those who need or desire information about a particular project or program in the semantics of IBE are called information users. For the Bedford Incremental Improvement Program, the following list of users was adopted:

Action Users

- Project Director
- Teachers
- Counselors
- School Administrators

Support Users

- Superintendent
- School Board
- State Department of Education
- USOE

Interest Users

Parents

Business and Industrial Community

Lay Community

Professional Community

Higher Education Community

Information Domains

A general area of concern for project or program staff and participants is called an information domain. For this project the following list of domains was adopted:

Teacher Evaluation

(1) Career Education In-service

(2) Career Education Seminars

(3) Career Education Attitude

(4) Career Education Implementation

Students

(5) Career Awareness

(6) Self Concept

(7) Work Attitudes

Evaluation Questions

The following list of evaluation questions attempted to blend the directions from the U.S.O.E. Guidelines with evaluation questions that were adopted by the project. The Project Director and IBEX, as the evaluator, feel that we responded to the Guidelines

and met the information needs of the Project and of the U.S.O.E. The following is a list of questions which can be answered with the available data elements:

1. How did students change in relation to their emphasis in terms of knowledge and attitudes concerning: career decision-making skills, job hunting skills, job-getting skills, and job-retaining skills.

2. To what degree did teachers develop instructional materials that help make all subject matter more meaningful and relevant in relation to a career education thrust as part of a division-wide effort.

3. To what degree did teachers make use of personnel from the business-industry-labor community and and other agencies as education resource persons in the educational system's total instructional program.

4. How did guidance personnel acquire the "know-how" to participate in part-time and full time placement programs and follow-up studies of former students.

5. How did teacher attitudes in the career education change?

6. What teaching strategies advocated by the program (presented at in-services) are the teachers utilizing in their classroom?

7. Is there an increase in the level of involvement of community resources in the learning process?

8. Was the community involvement effective?

9. To what degree did the Guidance personnel develop the capability to serve in a liason position with other educational personnel, between the school, and the business-labor industry community?

Evaluation Constraints

No evaluation effort is devoid of constraints or limitations; thus, it was imperative that the constraints be considered from the beginning of the evaluation and the procedures be established to work within these constraints. Two major constraints, time

and resources, are of primary importance.

For this evaluation effort, 7,862 dollars of the gross budget allotted. It was necessary to delete some desirable information needs to stay within this constraint. Principals agreed to one and one-half hours of student time during the Spring term. To meet this constraint a modified sampling matrix using test, grade and class as variables, was adopted, thus all students did not take all tests. Each student had one hour to one hour and fifteen minutes of actual testing time.

All the students in the Bedford School District participated in the Career Education Project; therefore, no control was possible for the study. Finally, since Career Education is to be infused into the instructional program and not isolated as a specific area, the determination of cause and effect relationships will not be considered as a part of this evalution.

Instrumentation

The evaluation instruments listed below were presented for the project staff consideration. The instruments utilized for the evaluation were the recommended instruments in the U.S.O.E. Guidelines. Each instrument is briefly described, its subscales noted. Compelte copies of the instrument appeared in the Instrument Catalog. Instruments are arranged by audience groups.

Students

Self Observation Scales - The Self Observation Scales is a measure of student self-concept at the primary (K-3) and intermediate (4-6) levels. Scales include: Self Acceptance, School Affiliation,

Social Maturity, Self Security, Achievement Motivation, Social Confidence, Peer Affiliation, and Teacher Affiliation.(SOS)

Career Maturity Inventory - The Career Maturity Inventory is an instrument designed by the California Test Bureau to determine if students can relate social and academic skills learned in school to occupational requirements. (CMI) Grades 7-12

Teachers

Career Education Inservice Questionnarie - The Career Education Inservice Questionnaire was designed to determine how teachers perceive career education in their schools. The questionnaire was administered on a pre/post basis and measures teacher gains in three areas: acceptance of career education, change orientation, and commitment to career education.

Career Education Teacher Practices Interview - The Career Education Teacher Practices Interview is a teacher interview guide to determine level of use by teacher of certain practices suggested by the Career Education effort. (CETPI)

SECTION V. EVALUATION RESULTS

This section is organized around three major information domains or evaluation areas of interest. These Domains are: (1) student self concept, (2) student relationships with the world of work, and (3) teacher attitudes toward career development.

Student Self Concept

A first objective at the elementary level is to enable students to develop a more positive self concept and greater understanding of self.

Between the ages of five and twelve self concept begins to crystalize. During this period (termed the latency period by many authors), the child matures considerably in the physical, cognitive and affective areas. He confronts his environment with an increasingly stable set of feelings, attitudes and behaviors which are based, to a large extent, on his self concept which is likewise, stabilizing. As the child becomes older he becomes more sure of what he likes and dislikes, who he likes and dislikes, what he enjoys doing and what he dislikes doing, how he sees his future and what he will be doing in this future. He begins to plan and his aspirations and hopes tend to be consistent with the way he values himself, which, in turn, is dictated in large part by how he perceives others value him.

Although the early school years are characterized by a crystalization of self, the child also begins to differentiate. The self concept of the five-year-old is a relatively simple construct. The five-year-old views most things as a dichotomy: people are good

or bad, food is good or bad, places are happy or sad places to be, other children are friendly or mean. As the six-year-old enters first grade, new demands are placed on him. He is expected to interact with unfamiliar children and authority figures and, to a great extent, his well being is determined by how successfully he negotiates these new demands. It is these early school years that have a truly profound impact on the child's self concept development. Never before has he been consistently, objectively and sometimes coldly, judged by peers and adults. He is unable to separate himself from his actions so that reprimands and criticism often become viewed as direct threats to self. With this background information we now turn to the correlates of a positive and negative self concept, respectively.

The Positive Self Concept*

Children with positive self concepts are, first of all, confident about their ability to meet everyday problems and demands. They are confident about their relationships with other people and take pleasure in mutual interdependence, in needing others and in being needed. Autonomy and interdependence are beginning to take shape. Children with strong self concepts view themselves as desirable and valuable contributors to the well being of those around them. They see themselves as deserving of attention and love and feel they are capable of reciprocating. They compare themselves favorable with their peers and feel that authority figures are supportive and interested in them as individuals. These children tend to be comparatively independent

*The profiles for a "positive" and "negative" self concept are drawn from the results of the national validation and norming of the Self Observation Scales.

and reliable. These qualities may stem from their feelings of sufficiency and adequacy in new and challenging situations. They are relatively free from anxiety, nervousness, excessive worry, tiredness and loneliness. They report being happy with the way they look and would not change their appearance if they could.

Children with a positive view of themselves enjoy interacting with their peers and see themselves as on a par with their peers in most situations, while occasionally professing superiority in certain areas. They recognize the social consequences of certain "asocial" actions and see the benefits of give-and-take in social interactions. These children are able to admit that they make mistakes and that they sometimes hurt other people, but they apparently do not view these admissions as major threats to self.

Behaviorally, these children are seldom designated as problem children. They usually appear comparatively calm, keep their hands to themselves and although they are frequently competitive, they express aggression when external considerations warrant aggressive behavior. They express dissatisfaction with their own poor performances but relatively seldom make self deprecating remarks. They react positively to constructive criticism, can accept praise well, and derive obvious pleasure from a job well done.

Scholastically, children with positive self concepts tend to be above expectation in reading and mathematics. They tend to attain higher scores on standardized achievement tests than would be predicted from ability tests. These children are positive toward school and view it as a happy, worthwhile place to be.

The Negative Self Concept

Children with poor self concepts are insecure and pessimistic about their ability to meet everyday problems and demands and they are unsure about their relationships with others. They often tend to be either overly dependent and withdrawn or overly aggressive with apparently minimal overt needs for social interaction and, in each case, growth toward autonomy appears stunted and retarded. These children view themselves as undesirable and, through their often inappropriate behavior (which is, although inappropriate, usually quite consistent with the way the children feel about themselves), they are regularly reinforced in these feelings.* They report not being needed by significant others and do not feel that others care about them as individuals. They compare themselves unfavorably with their peers and frequently report being inferior to their peers in age-appropriate activities. Authority figures represent a threat to children with poor self concepts.

These children are threatened in social interactions and prefer to play with younger children. They report a desire to dominate in peer-oriented activities, i.e., always wanting to be first or always wanting to be the leader, and yet, would prefer to play alone if given a choice. They tend to be quitters and are satisfied with poor performance (again, poor performance is consistent with the way these children view themselves). These children find it difficult to admit to even common mistakes and are quite insensitive to other people's feelings.

*Modifying the truism from the financial world that "the rich get richer and the poor get poorer", we can say that children with strong self concepts get positive reinforcement and, thus get stronger, while those with weak self concepts get negatively reinforced and thus, get weaker.

Behaviorally, these children are frequently labeled as problem children. The acting out, aggressive, verbally disruptive child has a markedly lower self concept than does the "healthy" child. Likewise, the insecure, withdrawn, quiet child also has a low self concept, but his inadequacies are manifested differently from the aggressive child. These children respond negatively to criticism and, surprisingly, they often respond inappropriately or even negatively to praise because positive feelings are inconsistent with the way these children feel about themselves.

Scholastically, children with poor self concepts tend to be below average in reading and mathematics. They tend to obtain lower scores on standardized achievement tests than would be predicted from ability tests. These children are negative toward school and view it as an unhappy place to be.

As a measure of children's self concepts, the Self Observation Scales (SOS) were used in this evaluation. The SOS is a direct, self report, group administered instrument comprised of fifty items at the primary level (K-3) and sixty items at the intermediate level (4-6).

The Primary level of the SOS measures five dimensions of children's self concept. Each scale is labeled in a positive manner with high scores being most characteristic of the scale name.

The scales are as follows:

Self Acceptance

Children with high scores view themselves positively and attribute to themselves qualities of happiness, importance, and general competence. They see themselves as being valued by peers, family and teachers. Children with low scores see themselves as unhappy, lacking in general

competence and of little importance to others.

Social Maturity

Children with high scores on this scale know how they are supposed to think and feel in a variety of social situations. They have learned the importance of such notions as "fair play", "sharing", "perserverance", "helpfulness", and "generosity". Children with low scores on this scale have not learned these notions and are likely to evidence behaviors that most adults would characterize as selfish, inconsiderate or immature.

School Affiliation

Children with high scores view school as a positive influence in their lives. They enjoy going to school, and they enjoy the activities associated with school. Children with low scores view school as an unhappy place to be. They do not enjoy most school related activities and are negative about the importance of school in their lives.

Self Security

Children with high scores report a high level of emotional confidence or stability. They feel that they are in reasonable control of the factors that affect their lives and spend little time worrying over possible troubles. Children with low scores on this scale worry a great deal. They are concerned that something bad may happen and report feelings of nervousness.

Achievement Motivation

This is a special scale, relating achievement and ability to self concept. High scores indicate increased probability that the child will achieve well relative to ability; low scores indicate increased

probability that the child will not achieve as well as might be expected on the basis of his ability. This scale is considered to be experimental, and we recommend that its use for individual assessment be deferred pending the results of our current program of confirmatory analyses.

The Intermediate level of the SOS measures the same five dimensions of children's self concept and adds three additional scales, as follows:

Self Security

Children with high scores report a high level of emotional confidence or stability. They feel that they are in reasonable control of the factors that affect their lives and spend little time worrying over possible troubles. Children with low scores on this scale worry a great deal. They are concerned that something bad may happen and report feelings of nervousness.

Teacher Affiliation

Children with high scores on this scale like their teachers. They see the teacher as helpful, attentive, understanding and generous. Children with low scores on this scale see the teacher as arbitrary, inconsiderate of children, and/or a source of emotional pain.

Peer Affiliation

Children with high scores on this scale consider their relationships with other children to be both of high quality and of considerable importance to them. They see themselves as approved of and valued by their peers. They like to be with other children. Children with low scores do not see their peer relationships as an asset. They see other

children as unfriendly, they have few friends, and do not accept the responsibilities of friendship easily.

Scoring of the SOS is based on national norms. For each scale, a child receives a standard score (T score), representing a distribution with a mean of 50 and a standard deviation of 10. National percentile and stanine equivalents of this standard score also are provided. Responses to individual items are not given.

The Primary Level of the SOS was given to the student sample at grade 3 and the Intermediate Level to grade 6 in the Fall of 1975 and Spring of 1976. Table 1 presents the results of the Primary SOS.

Based on standard scores having a mean of 50 and a standard deviation of 10, these results indicate that:

- Bedford primary career education students showed a positive gain in all areas of their self concept from pre to post testing.
- Bedford primary career education students achieve higher scores in Self Security than the national norm group.
- Bedford primary career education students achieve higher scores in School Affiliation than the national norm group.
- Bedford primary career education students achieve higher scores in Social Maturity than the national norm group.

- Bedford primary career education students appear to have slightly lower scores in Self Acceptance than the national norm group.

The preceding data should be viewed with some reserved since the pre test group was much larger than the post test group. (N=222/N=79)

Results of the SOS Intermediate Level are presented in Table 2. The SOS was given on a pre/post test design this year. An examination of these tables reveals that:

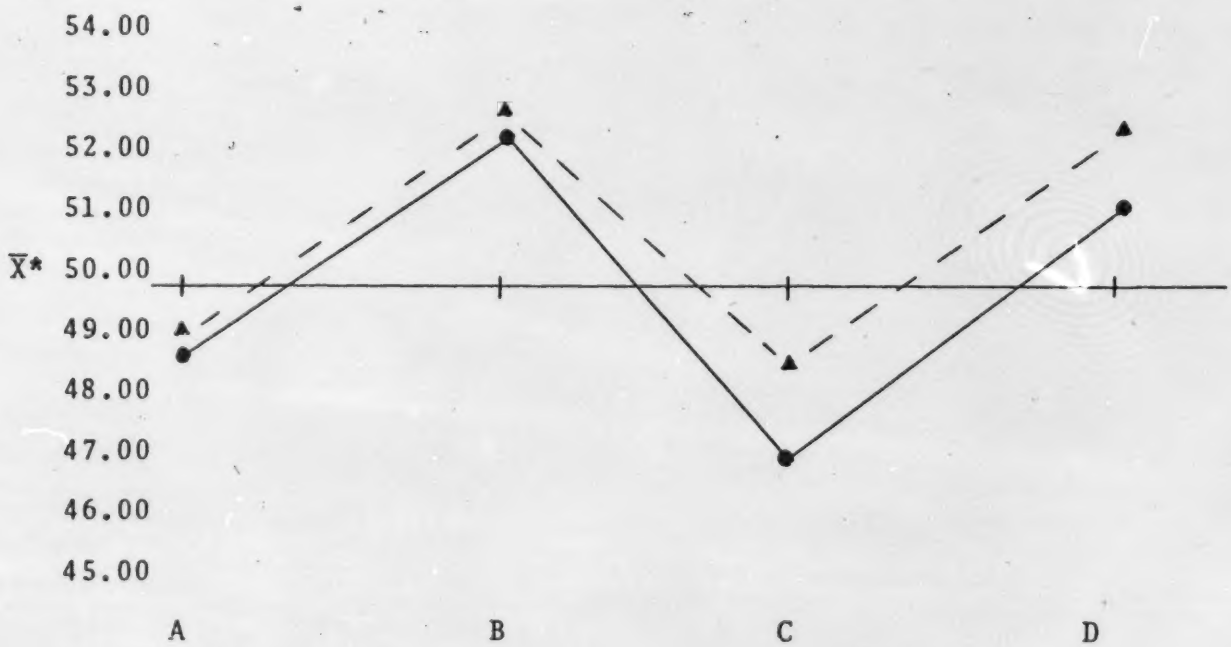
- Intermediate students in the Bedford career education classes obtain higher scores than the national norming group in: Self Acceptance, Social Maturity, Social Confidence, and Peer Affiliation.
- Intermediate students appear slightly below the national norming group in Self Security, School Affiliation, and Teacher Affiliation.

The preceding data should be viewed with some reservation since the pre test group was much larger than the post test group. (N=333/N=81)

TABLE 1

Bedford Career Awareness
1975 - 76
Primary Self Observation Scales
Pre and Post Test
Means and Standard Deviations
Pre N=222 Post N=79

		Pre $\overline{X}$	Pre S.D.	Post $\overline{X}$	Post S.D.
A.	Self Acceptance	48.50	9.85	48.87	10.00
B.	Social Maturity	52.04	8.34	52.13	7.21
C.	School Affiliation	47.02	11.69	48.51	10.51
D.	Self Security	51.18	9.18	52.34	7.83



*50.00 is mean "T" with a forced S.D. of 10 based on normative procedures

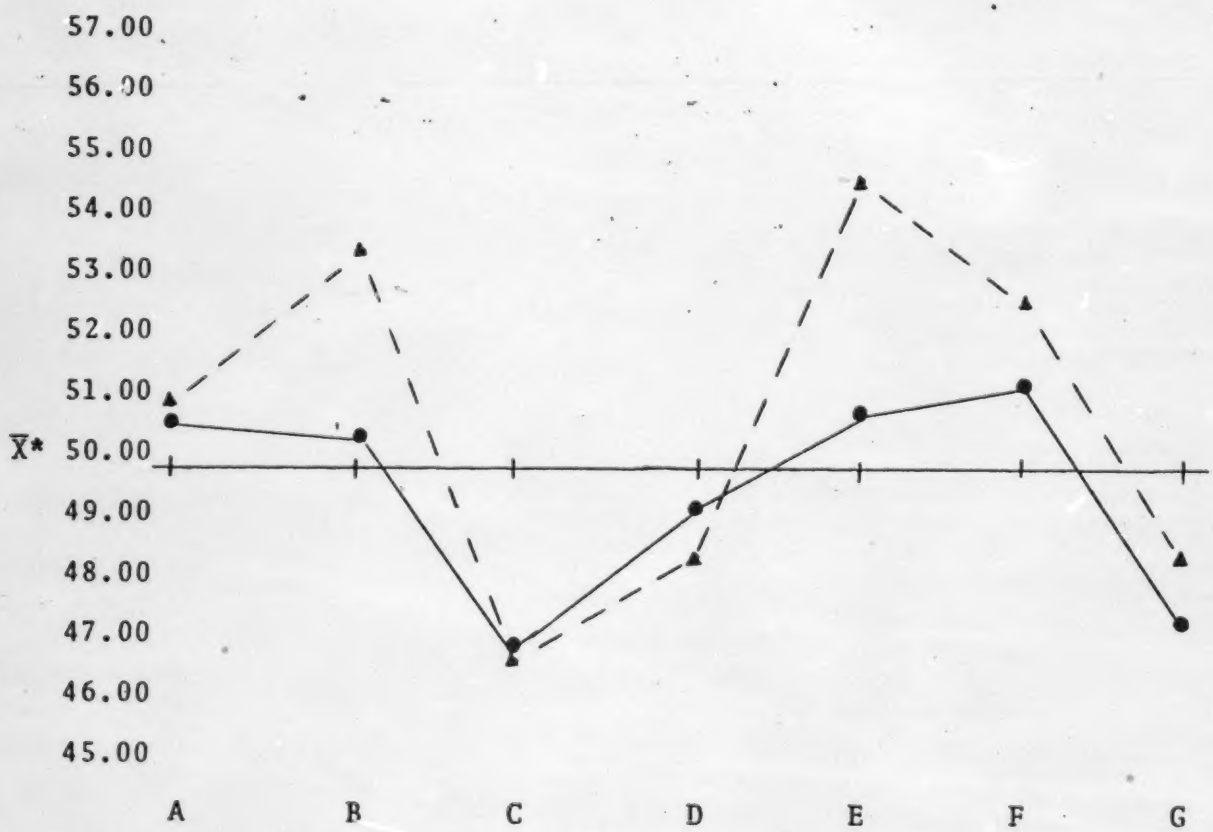
Legend: ●——— Pre Test Score

▲- - - - - - -▲ Post Test Score

TABLE 2

Bedford Career Awareness Program
1975 - 76
Intermediate Self Observation Scales
For Pre/Post Test
Means and Standard Deviations
Pre= 333 Post= 81

	Pre $\bar{X}$	Pre S.D.	Post $\bar{X}$	Post S.D.
A. Self Acceptance	50.36	10.11	50.77	9.28
B. Social Maturity	50.12	9.88	53.17	8.92
C. School Affiliation	46.76	11.66	47.74	9.79
D. Self Security	49.02	10.40	48.49	9.74
E. Social Confidence	50.90	8.73	54.65	9.07
F. Peer Affiliation	51.40	9.51	52.36	8.92
G. Teacher Affiliation	47.17	11.48	48.15	10.97



*50.00 is a mean "T" with a forced S.D. of 10 based on normative procedures

Legend: ●——————● Pre Test Scores

▲- - - - - - - - - - -▲ Post Test Scores

STUDENTS' CAREER AWARENESS

The instrument which was utilized to assess upper grade students' perceptions of the world of work (and their relation with it) was the Career Maturity Inventory.

This instrument is comprised of five scales. A decision was made by the project director and evaluation team to use three of the five scales. The three scales used were chosen to measure: (1) the maturity of attitudes and competencies that are critical in realistic career decision making, (2) the ability of students to appraise their job-related capabilities, and (3) the aspiration level of students (more carefully defined as economic understanding of each job).

Each of the three CMI scales employs a series of multiple choice items. Scores on each scale are converted from a raw score to a national percentile. It is unfortunate that the number of project students taking the CMI was not as large from pre to post test to allow the statement of a more definite conclusion, concerning the test data. Since the CMI norms are not true national norms and as the N size for the project students for the post is small, the following are tentative conclusions.

- High school career education students (grades 10-12 have gained in the area of practical knowledge of the world of work.
- High school career education students appear to exhibit a minor gain in the ability to focus upon goal selection, planning and problem solving.

Table 1
BEDFORD CAREER AWARENESS PROGRAM

1975 - 76
Pre/Post Test Results
CAREER MATURITY INVENTORY
LOOKING AHEAD
GRADES 10,11,12

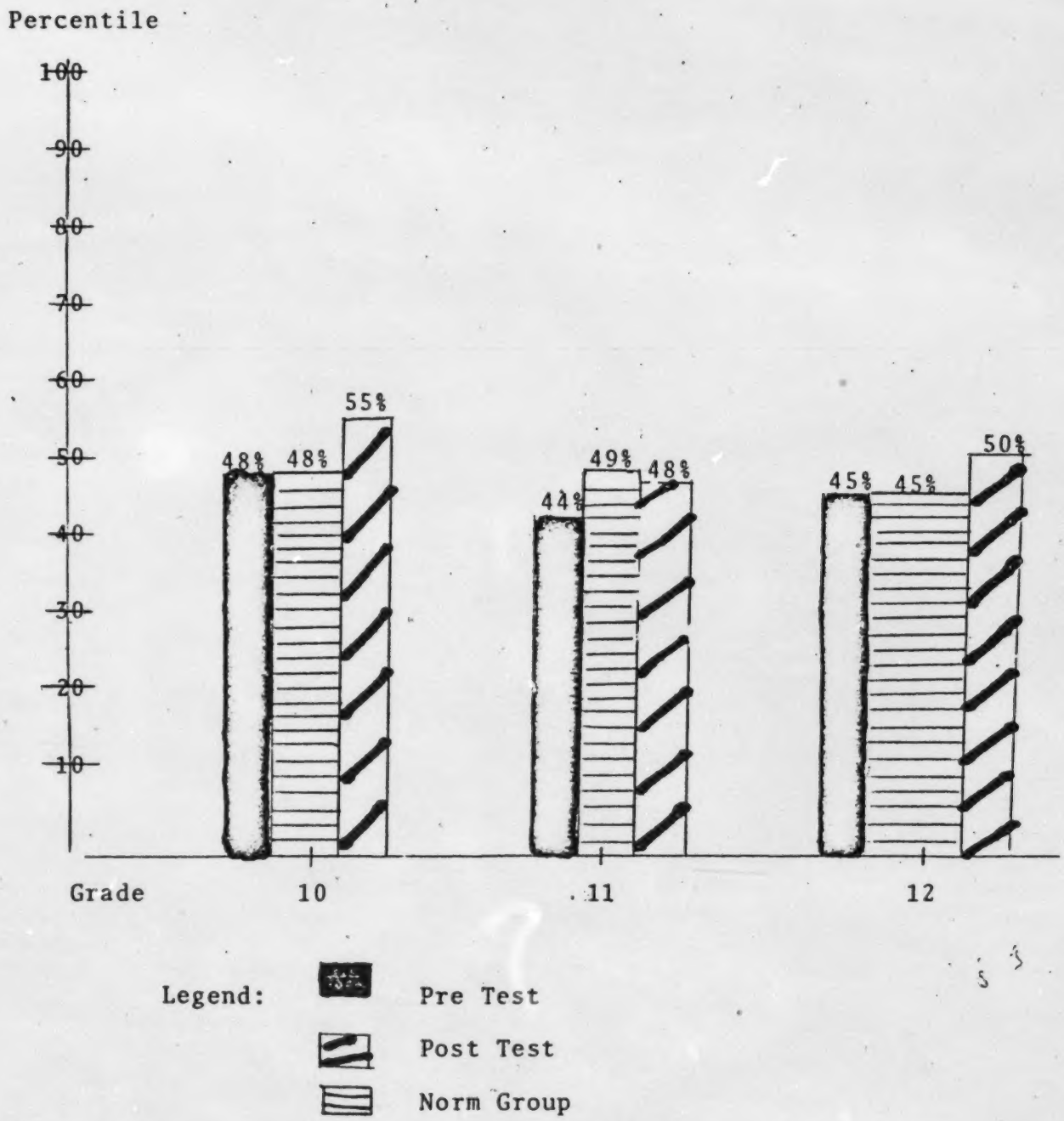


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Table 2
BEDFORD CAREER AWARENESS PROGRAM

1975 -76

Pre/Post Test Results
CAREER MATURITY INVENTORY
CHOOSING A JOB
GRADES 10,11,12

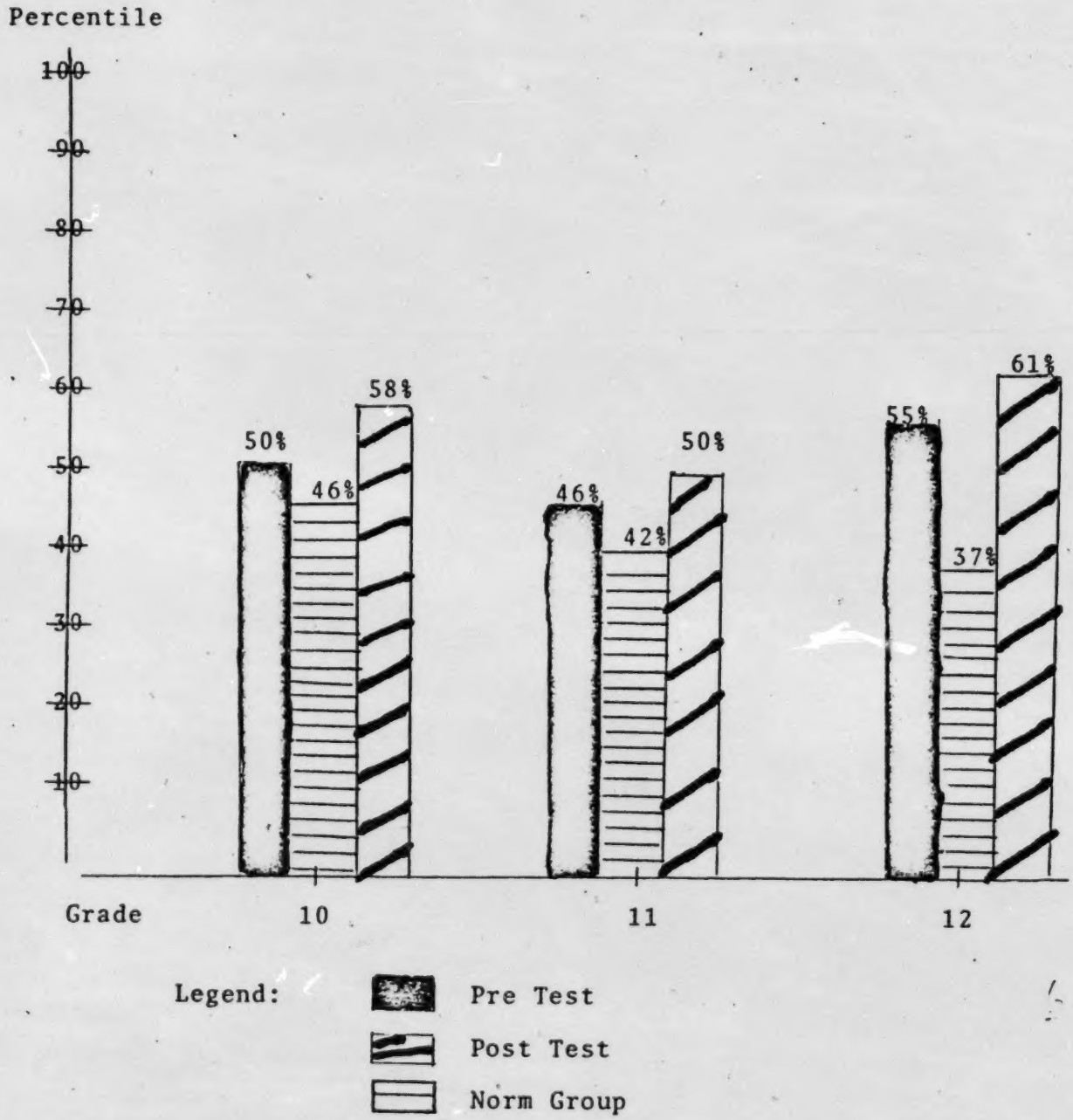
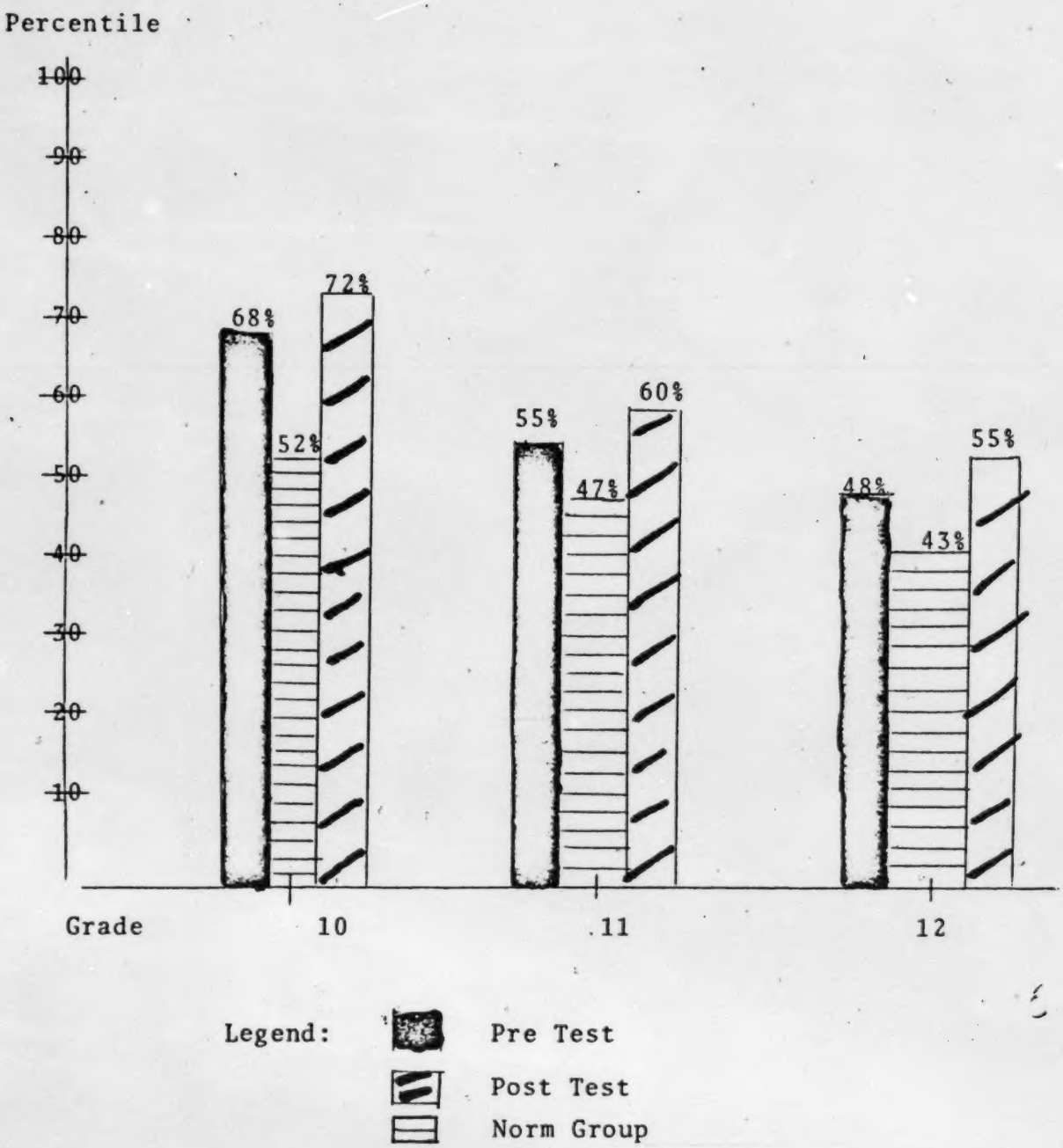


Table 3
BEDFORD CAREER AWARENESS PROGRAM

1975 - 76
Pre/Post Test Results
CAREER MATURITY INVENTORY
WHAT SHOULD THEY DO?
GRADES 10,11,12



TEACHER OUTCOMES

In order to respond to evaluation questions concerned with the teacher's role in the career development project, the teachers were requested to fill out the Teacher Practices Survey and Bedford Career Education Survey.

The Career Education Teacher Survey was completed by all of the teachers participating in the project. Each practice must be viewed separately in order to interpret the results of the survey. Obviously, some practices such as video taping of career education activities are used only occasionally and others, such as integration of basic skills with career education, should be daily activities. Activities such as use of library resources related to careers and displays concerning careers and jobs would be considered good if utilized once a month. Each practice is presented along with the presentation of responses in each category.

An inspection of the following table reveals that the most often expressed practice among participating teachers is the integration of basic skills with career education, one of the basic concepts recommended by the project. Generally, the utilization of the various career education practices seems to fall into reasonable ranges for the practices presented. Teachers are using the concepts and practices of the career education program in their classrooms.

There are particular areas that need attention in the staff development phase of the program. Forty-eight percent of the respondents never use Career Education Programs through Educational

television. Although this is low, we recognize that many schools may not have the necessary equipment to utilize this activity. Other activities that teachers seems to need is more assistance in using:

a. displays concerning careers and jobs.

b. visits to factories, businesses, or self-employed persons.

The Bedford questionnaire consisted of three scales identified by factor analyzing the forty questions. The questionnaire is designed to measure variation among staff members in terms of their commitment, change orientation, and affective acceptance to career education. Table 2 presents the percentage of the teacher responses to the questionnaire according to the three scales.

The acceptance scale was designed to measure teacher acceptance of principles and concepts of career education. Employment factors and skill training are included in this section. The items contained within this factor are rather general and broad in scope and do not call for personal commitment on the part of a teacher to support adopting the career education program.

The commitment scale deals with teacher involvement. It is more action oriented and commitment seems to be the major theme of this subscale. It emphasizes an integrated program involving all students and consequently a teacher will feel the need to be involved. At the opposite end of the continuum this scale identifies the teacher who endorses a separate career education program and who perpetuates a fragmented curriculum and differen-

tial staffing. These items do not include employment factors such as occupational, vocational or career education. It is designed to identify potential innovators and teachers who are receptive to change without reference to the "work ethic."

The change orientation scale is designed to measure a teacher's change in attitudes concerning his/her knowledge of the career education program goals and objectives. The items in this scale are rather general and broad and are intended to gauge teacher acceptance of the program. Table 2 presents the results of the survey on a pre/post test basis. Teachers showed a substantial gain in all three of the scales.

Table I
CAREER AWARENESS TEACHERS' PRACTICE

Number and Percent Response
by Categories for Each Item

	(N)	Daily	Atleast Once A Week	Atleast Once A Month	A few times during year	Never
1. Integration of basic skills with career education	(65)	17 26.1	20 30.7	5 7.6	22 33.8	1 1.5
2. Use of library resources related to careers	(59)	3 5.1	15 25.4	14 23.7	22 37.2	5 8.4
3. Interrelation of concepts and careers	(60)	13 21.6	15 25	14 23.3	17 28.3	1 16.6
4. Use of video taping of career education activities	(68)	-	1 1.4	7 10.2	32 47.0	28 41.1
5. Class presentation of career opportunities	(61)	2 3.2	9 14.7	20 32.7	25 40.9	5 8.1
6. Displays concerning careers and jobs	(62)	2 3.2	4 6.4	17 27.4	28 45.1	11 17.7
7. Group discussions of careers and job opportunities	(61)	2 3.2	12 19.6	17 27.8	25 40.9	5 8.1
8. Pupil selection of career field of interest	(57)	2 3.5	-	12 21.0	33 57.8	10 17.5
9. Newspaper ads and magazines related to job opportunities	(56)	1 1.7	2 3.5	10 17.8	22 39.2	21 37.5
10. Career education materials	(64)	3 4.6	9 14.0	26 40.6	20 31.2	6 9.3
11. Career-related role playing and simulations	(54)	1 1.8	4 7.4	8 14.8	29 53.7	12 22.2
12. Joint planning of activities with Career Education project staff	(60)	-	4 6.6	15 25.0	23 38.3	18 30.0
13. Career education films or filmstrips	(36)	1 2.7	5 13.8	1 2.7	17 47.2	12 33.3
14. Visits to factories, businesses or self-employed persons	(57)	-	-	2 3.5	36 63.1	19 33.3
15. Career Education through educational T.V. Programs	(61)	-	1 1.6	3 4.9	35 57.3	22 36.0

Table 2
Bedford Career Education Survey
Acceptance Scale

Question	Scale Name: Strongly Agree Pre/Post	Agree Pre/Post	Uncertain Pre/Post	Disagree Pre/Post	Strongly Disagree Pre/Post
36. Students should be told about different jobs and job requirements during the study of every subject in every grade.	12% * / 33% **	35% / 39%	23% / 6%	25% / 16%	5% / 6%
37. Every student should have at least one paying job before graduating from high school.	15% / 46%	42% / 39%	30% / 11%	13% / 2%	N/R / 2%
33. Visits from industrial chemists would create more interest in a chemistry class.	15% / 38%	70% / 51%	12% / 9%	3% / 2%	N/R / N/R
39. Every high school graduate should be guaranteed either further education or immediate employment.	10% / 23%	25% / 34%	25% / 18%	25% / 15%	15% / 10%
16. Elementary school would be better if centered around the world of work.	2% / 6%	16% / 43%	32% / 36%	30% / 15%	20% / N/R
1. An effective program of career education would lower the school dropout rate.	43% / 60%	33% / 29%	17% / 11%	7% / N/R	N/R / N/R
31. Students should hold several kinds of jobs before leaving high school.	13% / 30%	43% / 48%	26% / 14%	13% / 4%	5% / 2%
25. Elementary school students should have workmen, such as postmen, garment workers, and electricians, coming to school to talk about their jobs.	38% / 58%	52% / 40%	10% / 2%	N/R / N/R	N/R / N/R
2. If schools were career-oriented, they would be useful to more students.	25% / 59%	63% / 41%	12% / N/R	N/R / N/R	N/R / N/R
3. Most local business and professional people would help with a career program in the schools.	13% / 17%	54% / 70%	30% / 13%	3% / N/R	N/R / N/R

* Indicates pre test score
** Indicates post test score
N/R = No response

Bedford Career Education Survey
Acceptance Scale Continued

Question	Scale Name: Strongly Agree (Pre/Post)	Agree (Pre/Post)	Uncertain (Pre/Post)	Disagree (Pre/Post)	Strongly Disagree (Pre/Post)
13. Career education will cost money but will be a saving for society because of an increase in employment.	10% * / 24% **	30% / 54%	37% / 14%	23% / 8%	N/R / N/R
40. Our local community should pay for career education if the state and federal governments cannot.	2% / 34%	30% / 43%	42% / 23%	13% / N/R	13% / N/R
20. Local residents would be eager to visit schools to talk to students about their jobs.	12% / 14%	42% / 50%	42% / 30%	4% / 4%	N/R / 2%
32. Students who are good in history should be told about jobs in this field.	25% / 37%	55% / 53%	18% / 4%	2% / 4%	N/R / 2%
14. Career education should be available to all students from kindergarten through grade 12.	15% / 74%	55% / 20%	10% / 6%	12% / N/R	8% / N/R
26. Foreign language teachers should teach about careers in their classes.	5% / 51%	68% / 47%	18% / N/R	7% / N/R	2% / 2%
34. The ways mathematics can be used in jobs can be taught in a few days in every mathematics course.	8% / 11%	25% / 20%	20% / 13%	35% / 29%	12% / 17%
5. The quality of education would be raised by an emphasis on jobs and work.	8 / 17%	37% / 53%	30% / 24%	23% / 2%	2% / 4%

* Indicates pre test score
** Indicates post test score

N/R = No response

Bedford Career Education Survey
Change Orientation

Question	Scale Name: Strongly Agree Pre/Post	Agree Pre/Post	Uncertain Pre/Post	Disagree Pre/Post	Strongly Disagree Pre/Post
22. I find that individualized instruction using performance objectives is valuable in helping the student succeed.	20%*	58%	20%	2%	N/R
	34%**	53%	11%	N/R	2%
23. I believe it is more important to work with the entire class than to spend a lot of time with individuals.	2%	N/R	23%	50%	25%
	N/R	4%	11%	59%	26%
8. I accept the idea that individualized insturction using performance objectives allows students to experience success more often.	30%	50%	15%	5%	N/R
	39%	48%	11%	N/R	2%
27. I regularly use performance objectives with individualized learning experiences to help my students develop to their potential.	12%	59%	18%	11%	N/R
	11%	43%	14%	30%	2%
17. As part of a teaching team, I could spend more time developing creativity, responsibility, and habits of inquiry in students.	15%	73%	12%	N/R	N/R
	42%	39%	15%	4%	N/R
9. I teach my classes without assistance and discourage others from helping.	2%	N/R	2%	48%	48%
	N/R	N/R	N/R	39%	61%
28. I would greatly dislike being a member of a differentiated teaching team.	N/R	2%	27%	43%	28%
	N/R	2%	13%	46%	39%
10. I do not work well enough with others to make differentiated team teaching work.	N/R	N/R	7%	50%	43%
	N/R	N/R	2%	33%	65%
15. I'm convinced that differentiated team teaching is a waste of time.	N/R	N/R	29%	44%	36%
	N/R	N/R	7%	38%	55%
30. I say that differentiated team teaching is asking too much of established teachers.	N/R	5%	27%	45%	23%
	4%	N/R	4%	43%	49%

* Indicates pre test score
** Indicates post test score

N/R = No response

Bedford Career Education Survey
Commitment Scale

Question	Scale Name: Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
	Pre/Post	Pre/Post	Pre/Post	Pre/Post	Pre/Post
38. "Career Education" is another name for vocational education.	10% *	18%	18%	47%	7%
	N/R **	N/R	2%	11%	87%
6. Elementary school is too early for a student to start thinking about career possibilities.	7%	13%	8%	53%	20%
	N/R	2%	4%	31%	63%
4. Career education will be of greater long term value to boys than to girls.	2%	10%	12%	46%	30%
	2%	2%	4%	38%	54%
35. One can easily predict a child's eventual career by looking at his family's ambitions for him and his father's occupation.	N/R	12%	15%	48%	25%
	N/R	6%	11%	52%	31%
19. Students going on to college should not make their career plans while in high school.	N/R	5%	12%	43%	40%
	N/R	2%	7%	30%	61%
11. The school guidance department should carry the primary responsibility for career education.	7%	20%	18%	45%	10%
	2%	4%	9%	39%	46%
24. There are areas in the school program more important than career education that need our time, money, and effort.	13%	18%	38%	23%	8%
	4%	7%	18%	47%	24%
12. The present high school vocational education courses teach students enough about the world of work.	2%	2%	29%	50%	17%
	N/R	2%	13%	28%	57%
18. Courses such as art and music would be damaged by including information about job possibilities in those fields.	N/R	N/R	10%	57%	33%
	4%	N/R	2%	35%	59%
29. Separate courses on career education would be better than incorporating this subject into existing courses.	2%	12%	25%	41%	20%
	N/R	2%	13%	46%	39%

* Indicates pre test score
** Indicates post test score
N/R = No response

Bedford Career Education Survey
Commitment Scale

Question	Scale Name: Strongly Agree Pre/Post	Agree Pre/Post	Uncertain Pre/Post	Disagree Pre/Post	Strongly Disagree Pre/Post
21. Career education should be taught by special career education teachers rather than regular teachers.	15%* 5%**	17% 2%	25% 2%	35% 53%	8% 38%
7. Career education is just another fad that will soon be forgotten.	5% 4%	10% 4%	25% 13%	43% 35%	17% 44%

* Indicates pre test score
** Indicates post test score

Inservice Activities

A major objective of the project was to provide in-service activities for teachers, guidance personnel and other interested individuals involved in the Career Education program. The following is a list provided by the project director of the six major in-service activities held in addition to several faculty meetings this year.

1. The first in-service meeting was a three day workshop held in August for twenty-six administrators and supervisors and concerned administration and implementation of a career education program. The following topics were covered:

   a. Implementation Categories
   b. Role of administrative personnel
   c. Definition of career education
   d. Liaison roles of guidance and placement activities
   e. Review of the project

2. Eleven Guidance Counselors attended a one-day workshop on Liaison Roles with business, industry, labor community, and Placement activities.

3. Librarians attended a one-day workshop concerning Librarians role in the implementation of Career Education and Materials.

4. Twenty-six teachers enrolled in the U. Va. Class; G.S. Ed Career Education first semester. Eight teachers enrolled in a class EDCI 578 Production of Instructional Materials. These teachers did a career education Project second semester.

5. Fifty-six teacher, Career Education staff members, and administrators participated in a four day inservice workshop on Phases of Career Education. The first half was devoted to discussing the Bedford County Model and planning methods. Second half covered the infusion process and preparing instructional units. Other topics were also covered as requested by teachers.

6. Bedford County held a system-wide workshop for 489 participants, all instructional personnel. The workshop was devoted to the Career Education Theme. Topics included in the General Session:

   a. An Employers View of a Successful Employee and Education's Role in this Success.

b. Career Education: Implications Present and Future.

The second phase consisted of nine one hour workshops conducted by VPI. Each secondary teacher attended two workshops. Topics covered were as follows:

a. Career Education in the Academic Subject
b. Guidance Liaison Roles and Placement
c. Materials Fair and County Mini-Courses
d. Career Education and Vocational Education
e. Work Experience Program in Career Education
f. Using the Resource Center
g. Seven, Eight and Nine Grades Career Exploration
h. Primary teachers Workshop focused on Awareness and Motivation
i. Intermediate teachers Career Awareness and Motivation

Twenty mini-courses were held by the Community Awareness and Motivation Group Guidance Coordinator concerning teacher made materials.

Another important component of the project was parent involvement. The Career Education personnel conducted fourteen parent meetings and presented the following mini-courses.

a. Five meetings concerning the topic Overview of Career Education
b. Four meetings concerning the topic Services Offered by the Bedford County Public Schools
c. Five meetings concerning the topic Parent Influence on Education and Career Choice

The meetings were well attended and well received by the parents.

The Bedford County Placement program was devoted to the students enrolled in the vocational education program. The Vocational Guidance Counsel placed 25 pupils in full time and 11 pupils in part-time jobs. The vocational counselor also prepared Student Placement Folders, Career Group Guidance Sessions, prepared local job profiles using Career Resource center, and made employer contacts. The vocational counselor was also involved in

student follow-up activities.

The Supervisor of Career Education was involved in coordinating the total career education program through numerous activities such as:

a. Visiting the schools
b. Conferring with school personnel
c. Working closely with the career education staff
d. Providing general supervision of activities and monitoring the project in general
e. Assisting and planning in-service programs to bring career education efforts together
f. Preparing dissemination materials
g. Discussing and coordinating the work of the Career Education project officers and the incremental staff
h. Meeting with guidance personnel and other instructional staff to establish resource centers
i. Attending administrative council meetings to present Career Education changes and update to all school administrators
j. Serving as a resource person for curriculum committees and others requesting help
k. Helping to assess needs and prepare a new proposal for the upcoming year
l. Helping to develop a career education plan for each school

Conclusions and Recommendations

IBEX shared the certain evaluation functions with the Project director and his staff. This provided an effective allocation of resources, while maintaining IBEX's independent review of all project activities. Based on the results of the 1975-76 evaluation, the evaluation team offers the following conclusions and recommendations:

The overall results of the Self Observation Scales as a measure of self concept, seem to indicate that this portion of the project is a success. While some variation by grade level on various scales was noted, overall the program strategies being employed are returning good results.

There seems to be a slight drop in school affiliation from the primary student (grades 1, 2, 3) to the intermediate student (grades 4, 5, 6). This must, unless otherwise shown, be considered a occurance of the students age and changing allegiances rather than a negative influence of the program.

The results of the career maturity inventory indicate an acceptable rate of program impact. The average rate of growth over the three scales for all three grade 10, 11, and 12 was six percentile points.

The results of the CMI both pre and post testing show that the three grade levels 10, 11, and 12 are above or

at the norm group. It is unfortunate that the CMI does not have an pre and post norm so that any conclusions that we might draw are subject to some caution. The results do, however, indicate that the program is having a positive impact on the career consciousness of students.